REMARKS

I. Status Of The Claims

Claims 1-45 are pending in this Application.

Claims 1, 5, 8-10, 12-17, 21, 24-26, 28-33, 37, 40, 41, and 43-45 are rejected under 35 U.S.C. 102(e) as being anticipated by Brunheroto (U.S. Patent No. 6,643,298).

Claims 2, 18, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brunheroto in view of Dillon (U.S. Patent No. 6,351,467).

Claims 3, 19, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brunheroto in view of Gubbi (U.S. Patent No. 6,934,752).

Claims 4, 20, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brunheroto in view of Kakizaki (U.S. Patent No. 6,229,883).

Claims 6, 7, 22, 23, 38, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brunheroto in view of Allen (U.S. Patent No. 5,892,535).

Claims 11, 27, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brunheroto in view of Lightfoot (U.S. Patent No. 5,583,864).

Claims 1, 14-17, 30-33, and 43-45 are independent.

With this response claims 1, 14-17, 30-33, and 43-45 are amended. No new matter has been added.

II. Rejection of Independent Claims 1, 14-17, 30-33, and 43-45

The Office Action rejects independent claims 1, 14-17, 30-33, and 43-45 under 35 U.S.C. 102(e) as being anticipated by Brunheroto. However, the Applicant respectfully submits that Brunheroto appears to fail, for example, to disclose, teach, or suggest:

> "... transmitting, to an end user terminal, a service having a control channel over a first transport stream ... [and]
>
> transmitting the service to the end user terminal over the second transport stream"

as set forth in each of claims 1, 14, and 15 as amended herewith (emphasis added).

As another example, Brunheroto appears to fail to disclose, teach, or suggest:

> "... receiving, at an end user terminal, a service having a control channel over a first transport stream ... [and]
>
> accessing, at the end user terminal, the service over the second transport stream"

as set forth in claim 16 as amended herewith (emphasis added).

The Office Action contends that Brunheroto discloses "transmitting ... a first transport stream" of claims 1, 14, and 15, and "receiving ... a first transport stream" of claim 16, via "data queues" 112 of Fig. 3 and column 6 lines 27-44 of Brunheroto. More specifically, the Office Action states that:

> "... the first transport stream is the stream over which the program stream and the QID is transmitted, and the second transport stream is new re-mapped stream"
> (see present Office Action p. 2; emphasis added).

The Applicant respectfully disagrees.

The Applicant notes, for example, that Brunheroto apparently fails to disclose, teach, or suggest that data queues 112 perform transmission, to an end user terminal, of a program stream over a transport stream. Brunheroto apparently fails, for instance, to disclose, teach, or suggest that "shared data bus structure (113)" reaches any end user terminal.

As another example, Brunheroto apparently fails to disclose, teach, or suggest transmission of a program stream over a transport stream prior to a re-mapping.

The Applicant respectfully observes, for example, that the "transmission"

discussed among column 6 lines 27-44 of Brunheroto is apparently not disclosed, taught, or suggested to be performed by data queues 112, or to refer to transmission of a program stream over a transport stream prior to a re-mapping.

Instead, Brunheroto apparently discusses the "transmission" as being performed by "output buffer" 109 subsequent to "re-mapping":

> "FIG. 3 further illustrates the Real-Time Output Controller (106) which provides a signal (110) to enable the Output Buffer (109) to transmit the appropriate amount of data in the appropriate time, depending upon the physical layer characteristics of the single transport channel ...
>
> In the preferred embodiment, data content from data queues (112) is provided to the Output Buffer (109) from the Fast Access Buffer via the intermediary of a content adjuster block (114) which implements changes to the Transport Packets as required by the TDM. It is in the content adjuster block (114) that the PID re-mapping scheme of the invention, is provided ... The Real-Time Output Controller (106) informs the scheduler (102) of the completion of the transmission of every Transport Packet which enables the Scheduler (102) to remain synchronized with the ChBR and keep accurate timing information via signal line (108)"
> (see Brunheroto col. 6 ln. 16-44; emphasis added).

Should the Office Action be taking discussion of "transport packets" ("TS packets") by Brunheroto to be indicative of a transport stream, the Applicant respectfully observes that Brunheroto apparently discusses a TS packet as being a program stream element:

> "[e]ach MPEG-2 program stream may be characterized as a data stream (which can contain data originated from a multitude of data sources) encapsulated using MPEG-2 TS packets, with each packet containing a header field with a Packet Identifier (PID)"
> (see Brunheroto col. 1 ln. 62-66; emphasis added).

The Applicant respectfully observes, for instance, that Brunheroto apparently makes it clear that there is only one transport stream.

For example, the Brunheroto discuses that:

> "[t]he present invention relates to the systems and methods for multiplexing packet streams on a shared transport channel, and, more particularly, to a method for ensuring unique identification of packets associated with one or more program streams to be multiplexed on an single transport channel"
> (see Brunheroto col. 1 ln. 9-15; emphasis added).

As another example, Brunheroto discuses that:

> "[a]s an MPEG-2 transport stream multiplexes several program streams into one single transport, in order to avoid ambiguity at the receiver, it is required that all the PID's belonging to the transport stream be distinct. Thus, given a set of program streams that need to be multiplexed into a single transport stream, all the PID's must be distinct (except for the Null packet which can be present in any program stream)"
> (see Brunheroto col. 2 ln. 12-19; emphasis added).

As an additional example, Brunheroto discuses that:

> "[t]he real-time multiplexing system (100) provides multiplexed data content from a variety of sources for transmission output over a transport channel (117) having an associated channel Bit Rate (ChBR)"
> (see Brunheroto col. 5 ln. 50-53; emphasis added).

As yet another example, Brunheroto discuses that:

> "FIG. 3 further illustrates the Real-Time Output Controller (106) which provides a signal (110) to enable the Output Buffer (109) to transmit the appropriate amount of data in the appropriate time, depending upon the physical layer characteristics of the single transport channel"
> (see Brunheroto col. 6 ln. 16-20; emphasis added).

Turning to independent claims 17 and 30-32, the Applicant respectfully submits that Brunheroto appears to fail, for example, to disclose, teach, or suggest:

> "... transmitting a service having a control channel over a first portion of a transport stream ... [and]
>
> transmitting the service to the end user terminal over the second portion of the transport stream ..."

as set forth in each of claims 17, 30, and 31 (emphasis added).

As another example, Brunheroto appears to fail to disclose, teach, or suggest:

> "... receiving a service having a control channel over a first portion of a transport stream ... [and]
>
> accessing the service over the second portion of the transport stream ..."

as set forth in claim 32 (emphasis added).

The Office Action contends that Brunheroto discloses "transmitting a service ... over a first portion of a transport stream" of claims 17, 30, and 31, and "receiving a service ... over a first portion of a transport stream" of claim 32, via "data queues" 112 of Fig. 3, column 6 lines 27-44, and column 3 lines 65-67 of Brunheroto. More specifically, the Office Action states that Brunheroto discloses:

> "[m]eans/transmitter (112 - Fig. 3, col. 6, lines 27-44) for transmitting a service having a control channel (QID - stream identifier) over a first portion (several programs are multiplexed onto one stream, wherein each program has its own QID. Each QID corresponds to a separate program (portion) - col. 3, lines 65-67) of a transport stream ..."
> (see Office Action p. 8; emphasis added).

The Office Action further states that:

> "[s]several programs are multiplexed onto one stream, and each program has its own QID (control channel). Therefore, each QID corresponds to a separate program (first portion). The second portion corresponds to the re-mapped program on the re-mapped stream"
> (see Office Action p. 3; emphasis added).

However, with reference to that which is discussed above, the Applicant respectfully observes that Brunheroto apparently fails, for instance, to disclose, teach, or suggest that data queues 112 perform transmission of a program stream over a transport stream prior to a re-mapping.

Turning to independent claims 33, 43, and 44, the Applicant respectfully submits that Brunheroto appears to fail, for example, to disclose, teach, or suggest:

> "... generating at least one configuration parameter including the control channel for the service;
>
> transmitting the at least one configuration parameter to an end user terminal; and
>
> transmitting the service including the control channel over the first transport stream, whereby the end user terminal accesses the service by reading the at least one configuration parameter ..."

as set forth in claim 33 (emphasis added), and as similarly set forth in each of claims 43 and 44.

The Office Action, equating the "configuration parameter" of the claims with "PID" of Brunheroto and the "control channel" of the claims with the "QID" of Brunheroto, contends that such is disclosed among column 3 lines 60-67, column 6 lines 28-40, element 109 of Fig. 3, and element 10 of Fig. 1 of Brunheroto.

However, the Applicant respectfully observes, for instance, that Brunheroto apparently fails to disclose, teach, or suggest that the PID of Brunheroto includes the QID of Brunheroto.

Should the Office Action be pointing to column 4 line 60 - column 5 line 5 of Brunheroto, the Applicant respectfully observes that this portion of Brunheroto apparently fails, for instance, to disclose, teach, or suggest that the PID of Brunheroto includes the QID of Brunheroto.

Instead, this portion of Brunheroto apparently merely discusses the QID being "concatenated with the offset output of the first table (10) to generate the address for the second table (20)," and discusses that it is the "output of the second table (20)" that "is the new PID value":

> "[i]n operation, as shown in FIG. 1, each entry in table (10) per PID input is an offset value (13) that points to the start (23) of a region (24) comprising values for re-mapping a given PID. Specifically, the current QID (stream identifier) value (27) for the program associated with that transport packet to be multiplexed, is added to the offset value (13) for addressing table (20) to obtain the new PID value (25). That is, for each transport packet being multiplexed, the hardware assist indicates the correspondent program stream identifier (QID), which number is concatenated with the offset output of the first table (10) to generate the address for the second table (20). The output of the second table (20) is the new PID value that is used to replace the original PID value" (see Brunheroto col. 4 ln. 60 - col. 5 ln. 5; emphasis added).

Turning to independent claim 45, the Applicant respectfully submits that Brunheroto appears to fail, for example, to disclose, teach, or suggest:

> "... receiving configuration information for the service from the control channel ..."

as set forth in claim 45 (emphasis added).

The Office Action, apparently contending that the PID of Brunheroto provides configuration information, equates the QID of Brunheroto with the "control channel" of the claim and argues that the QID "provides the configuration information since it is associated with a PID" (see Office Action p. 10; emphasis added).

However, the Applicant respectfully submits that even if it is taken to be true for the sake of argument that the PID provides configuration information and that the QID is associated with a PID, it is clear that the QID merely being associated with the PID would not be disclosure, teaching, or suggestion, for instance, that the QID itself provides configuration information.

Moreover, the Applicant respectfully observes that the disclosure of the present application makes it clear that the "control channel" of the claims is not at all like the PIDs or QIDs of Brunheroto.

Brunheroto, with regard to PIDs, discusses that:

> "... each packet contain[s] a header field with a Packet Identifier (PID). The PID field is used by the transport demultiplexer to 'tune' to a particular set of PID's that correspond to a given program stream"
> (see Brunheroto col. 1 ln. 65 - col. 2 ln. 1),

and with regard to QIDs discuses that:

> "[e]ach program has an associated stream identifier referred to herein as a queue ID (QID) ... Thus, for example, if the maximum number of programs is 128, then each region (22) contains 128 entries corresponding to 128 QIDs"
> (see Brunheroto col. 3 ln. 66 - col. 4 ln. 11).

In contrast, with regard to control channels, the disclosure of the present application discusses, for example, that:

> "... control channel 22, such as an Internet Protocol control channel, that can be transmitted using the PSI/SI layer of the transport stream 18 along with the network information table 20. The control channel 22 is used for relaying configuration information 24, such as network address information, and interface information, such as DVB parameters, required for properly accessing the service"
> (see disclosure of the present application p. 8 - p. 9; emphasis added).

As another example, with regard to control channels the disclosure of the present application discusses that:

> "[t]he first configuration parameter identifies the control channel with the first transport stream. The network then generates and/or transmits a second configuration parameter to the end user without receiving interactive information from the end user terminal. The second configuration parameter may include addressing and interface information and a program identifier that identifies the control channel with either a second transport stream or a second portion of the first transport stream"
> (see disclosure of the present application p. 4; emphasis added).

Additionally, the Applicant notes that Brunheroto appears to fail to disclose,

teach, or suggest:

> "... a first configuration parameter of the service stored by the end user terminal ..."

as set forth in each of claims 1 and 14-16 as amended herewith (emphasis added), and as similarly set forth in each of claims 17, 30, 31, and 32.

The Office Action contends that such is disclosed by Brunheroto via "original PID value (11)" of Fig. 1. However, the Applicant respectfully observes, for instance, that Brunheroto fails to disclose, teach, or suggest that original PID value (11) is stored by any end user terminal or that original PID value (11) is provided to any end user terminal.

Instead, Brunheroto apparently merely discusses original PID value (11) as being employed to "address the first table (10)":

> "[a]s shown in FIG. 1, the original PID value (11) is used to address the first table (10). For each entry (12) in the first table (10), a correspondent region (22) is assigned in a second swap table (20) which provides the new PID value" (see Brunheroto col. 3 ln. 60-63; emphasis added).

In view of at least the foregoing, the Applicant respectfully submits that claims 1, 14-17, 30-33, and 43-45 at least with the amendments herewith, as well as those claims that depend therefrom, are in condition for allowance.

III. Dependent Claim Rejections

The Applicant does not believe it is necessary at this time to further address the rejections of the dependent claims as the Applicant believes that the foregoing places the independent claims in condition for allowance. The Applicant, however, reserves the right to further address those rejections in the future should such a response be deemed necessary and appropriate.

CONCLUSION

The Applicant respectfully submits that this Application is in condition for allowance for which action is earnestly solicited.

If a telephone conference would facilitate prosecution of this Application in any way, the Examiner is invited to contact the undersigned at the number provided.

AUTHORIZATION

The Commissioner is hereby authorized to charge any fees which may be required for this amendment, or credit any overpayment to Deposit Account No. 13-4500, Order No. 4208-4060.

Furthermore, in the event that an extension of time is required, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to the above-noted Deposit Account and Order No.

Respectfully submitted,

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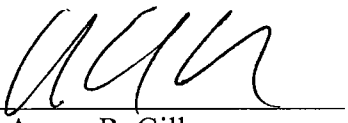
By: 

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